

ABSTRACT OF THE DISCLOSURE

A micro tunnelling machine has a tunnelling head with a boring bit which is forced in a horizontal direction by a hydraulic thruster. The direction of the head is laser guided. The beam strikes a target in the head and a camera relays an image of the target to an operator located at the tunnel entrance. The operator adjusts the direction by admitting water and draining water from a pair of rams inside the head which move the boring bit up and down or left and right.

A semi automatic version is disclosed in which a microprocessor adjusts the direction until the operator assumes control.